ADDITIONAL NOTES ON THE GENUS CHASCANUM. III

Harold N. Moldenke

Full explanation of the abbreviations used in this work for the names of herbaria in which cited specimens are deposited will be found in Phytologia 5: 143--159 (1955), 6: 242 (1958), 7: 91--92 (1959), 7: 123--124 (1960), and 7: 343 (1961).

CHASCANUM E. Mey.

Additional literature: Chiov., Fl. Somala [1]: 274. 1929; Xavier Louis & Monod, Bull. Agenc. Gén. Colon. 27: 605. 1934; Moldenke in Fedde, Repert. 41: 62 & 134. 1936; Hill, Ind. Kew. Suppl. 9: 61. 1938; Monod, Com. Ét. Hist. & Sc. Afr. Occid. Franç., sér. B, 5: pl. 21. 1940; Hutchinson & Bruce, Kew Bull. 1941: 176. 1941; Moldenke, Alph. List Cit. 1: 4, 6, 9, 11, 15, 25, 27--31, 33, 40, 42, 49--51, 54, 56, 57, 59, 71, 73, 74, 78, 80, 98, 101--104, 112--115, 117, 118, 120, 122, 123, 128, 130, 131, 141, 153, 154, 156, 162, 164, 165, 174, 176, 178, 183, 190, 193, 196, 204, 206, 210, 215, 219, 220, 224, 234, 235, 243, 247, 248, 250, 255, 261, 267, 270, & 275--277. 1946; E. J. Salisb., Ind. Kew. Suppl. 10: 33 & 49. 1947; Moldenke, Alph. List Cit. 2: 332, 342, 352, 354, 355, 358, 402, 408, 410, 415--417, 430, 434, 435, 448, 489, 490, 497, 501, 536, 537, 550, 554, 556--559, 561, 576, 577, 580, 581, 598, 601, 614, 619--621, 626, 627, 629--631, 641, 644, & 645 (1948), 3: 659, 663, 671--675, 684, 685, 700, 706, 707, 712, 721, 732, 740, 747, 748, 750, 754, 761--763, 769, 770, 780, 783, 784, 802, 803, 808, 811--813, 816, 822, 825--827, 832, 841, 847--849, 858, 866, 877, 878, 885, 887, 891, 895, 898, 900--903, 907, 916, 917, 931, 935, 945, 946, 949, 952, 968, 969, & 976 (1949), and 4: 981, 983, 985, 993--997, 1004, 1010, 1012, 1014, 1016, 1030, 1038, 1068, 1069, 1093, 1094, 1098--1100, 1118, 1135, 1139, 1140, 1147, 1151, 1154, 1156, 1179, 1232, 1296, & 1298. 1949; E. J. Salisb., Ind. Kew. Suppl. 11: 51. 1953; Moldenke, Phytologia 4: 439--450. 1953; Hauman, Assoc. Etud. Tax. Fl. Afr. Trop. Index 1954; Gillett, Kew Bull. 1955: 131--135. 1955; Assoc. Etud. Tax. Fl. Afr. Trop. Index 1955: 63. 1956; Moldenke in Humbert, Fl. Madag. 174: 16--20 & 265. 1956; Biol. Abstr. 30: 3845 & 4395. 1958; Moldenke, Résumé 132--135, 140, 143, 145, 146, 148, 150--152, 155, 157--159, 214, 238--240, 250, 251, 277, 295, 297, 298, 302, 334, 335, 341, 342, 348, 406, 423, 426, 445, & 446. 1959.

Gillett gives an excellent key in Kew Bull. 1955: 131--132 (1955) to the species of this genus known from the eastern and northeastern sections of tropical Africa and Arabia and suggests that additional new species will be found in this "unknown horn of Africa". His key is worth repeating here:

1. Leaves not linear.
   2. Leaf-blades essentially truncate at the base, the outer portion forming an angle of 80--90° with the midrib, the inner portion (which is attenuate into the petiole) shorter

than the unwinged petiole.

3. Calyx about 6 mm. long, less than twice as long as the subtending bractlet; tertiary veins prominent on the lower leaf-surface; indumentum of relatively sparse bristly hairs of unequal length, some of those on the stems and petioles being up to 1 mm. long; corolla-limb white or cream-colored.....C. marrubiifolium.

3a. Calyx about 8 mm. long, more than twice as long as the subtending bractlet; tertiary veins not prominent on the lower leaf-surface; indumentum of dense very short hairs, all less than 0.1 mm. long; corolla-limb brownish-yellow or purplish.....C. arabicum.

2a. Leaf-blades not truncate at the base, the outer portion forming an angle of less than 50° with the midrib, passing gradually into the inner portion, which is longer than the unwinged petiole (if any); calyx more than twice as long as the subtending bractlet.

4. Inflorescence without long spreading hairs, with a dense short indumentum not more than 0.2 mm. long.

5. Corolla-limb dark brownish-yellow or purplish; bractlets about 3 mm. long; calyx 6--8 mm. long; corolla-tube not more than 18 mm. long; usually some long hairs, as well as short ones, on the stems and leaf-base..C. gillettii.

5a. Corolla-limb white or cream-colored; bractlets about 2 mm. long; calyx about 8 mm. long; corolla-tube usually over 20 mm. long; short hairs only throughout the plant.....C. sessilifolia.

4a. Inflorescence with long spreading hairs (0.4--1 mm. long) as well as relatively sparse short ones; corolla-limb white or cream-colored.

6. Leaves attenuate at the base into a petiole which is often fairly long; corolla not more than 25 mm. in length.....C. hildebrandtii.

6a. Leaves lanceolate, not attenuate at the base, almost sessile; corolla about 30 mm. long.....C. hanningtonii.

1a. Leaves linear, entire; corolla-tube 10--12 mm. long..... C. rariflorum.

CHASCANUM ADENOSTACHYUM (Schau.) Moldenke

Additional literature: Hook. & Jacks., Ind. Kew. 1: 327. 1893; Prain, Ind. Kew. Suppl. 3: 27. 1908; Hill, Ind. Kew. Suppl. 9: 61. 1938; Moldenke, Phytologia 4: 440. 1953; Gillett, Kew Bull. 1955: 135. 1955; Moldenke, Geogr. Distrib. Avicenn. 30 & 31. 1939; Moldenke, Known Geogr. Distrib. Verbenac., [ed. 1], 45, 51, 52, & 87 (1942) and [ed. 2], 110, 119, 121, & 178. 1949; Moldenke, Résumé 135, 148, 152, 238, 251, & 445. 1959.

As Gillett has aptly pointed out (1955), the Lort Phillips s. n. [Wagga Mts., 1897] and s.n. [Rugger Pass], cited by me in Revist Sudam. Bot. 6: 16 (1939) as this species, are actually C. gillettii Moldenke. The true C. adenostachyum is not known from Somaliland; it is confined to southern Africa.

CHASCANUM AFRICANUM Moldenke

Gillett has pointed out, in the reference cited above, that this plant is actually conspecific with the Stachytarpheta hildebrandtii of Vatke. Its correct name, therefore, is now Chascamum hildebrandtii (Vatke) Gillett, which see.

CHASCANUM ANGOLENSE Moldenke

Literature: Moldenke in Fedde, Repert. 45: 142—143. 1938; Moldenke, Geogr. Distrib. Avicenn. 31. 1939; Moldenke, Known Geogr. Distrib. Verbenac., [ed. 1], 50 & 87. 1942; Moldenke, Alph. List Cit. 1: 243. 1946; E. J. Salisb., Ind. Kew. Suppl. 10: 49. 1947; Moldenke, Known Geogr. Distrib. Verbenac., [ed. 2], 118 & 178. 1949; Gillett, Kew Bull. 1955: 134. 1955; Moldenke, Résumé 146 & 445. 1959.

Gillett, in the reference cited above (1955), points out that this species appears to be very close in its characters to some forms of C. hildebrandtii (Vatke) Gillett and "future work may well show it to be conspecific."

CHASCANUM ARABICUM Moldenke

Literature: Moldenke in Fedde, Repert. 45: 138—140. 1938; Moldenke, Geogr. Distrib. Avicenn. 32. 1939; Moldenke, Revist. Sudam. Bot. 6: 16. 1939; Moldenke, Known Geogr. Distrib. Verbenac., [ed. 1], 53 & 87. 1942; Moldenke, Alph. List Cit. 1: 153 & 154. 1946; E. J. Salisb., Ind. Kew. Suppl. 10: 49. 1947; Moldenke, Known Geogr. Distrib. Verbenac., [ed. 2], 123, 124, & 178. 1949; Gillett, Kew Bull. 1955: 133. 1955; Moldenke, Résumé 134, 157, 158, & 445. 1959.

Gillett (1955) assumes from the color of the dried flowers on the type collection of this species that the corolla-limb is probably brownish-yellow or purplish rather than white or cream-colored when fresh. The limb is markedly darker than the tube in drying. He cites Glover & Gilliland 423, at Kew, from eastern Abyssinia. These collectors found the plant at an altitude of 600 meters, in open places, and describe it as a bushy plant, the corolla purple-brown with a yellow tube, blooming in November.

CHASCANUM CAESPITOSUM (H. H. W. Pearson) Moldenke

Additional & emended literature: Prain, Ind. Kew. Suppl. 3: 27. 1908; Hill, Ind. Kew. Suppl. 9: 61. 1938; Moldenke, Geogr. Distrib. Avicenn. 31. 1939; Moldenke, Known Geogr. Distrib. Verbenac., [ed. 1], 52 & 87 (1942) and [ed. 2], 121 & 178. 1949; Moldenke, Alph. List Cit. 3: 902. 1949; Moldenke, Phytologia 4: 441. 1953; Moldenke, Résumé 152, 238, & 445. 1959.

CHASCANUM CERNUUM (L.) E. Mey.

Additional literature: Hook. & Jacks., Ind. Kew. 1: 327 & 507. 1893; Moldenke, Geogr. Distrib. Avicenn. 31. 1939; Moldenke, Known Geogr. Distrib. Verbenac., [ed. 1], 52 & 87. 1942; Moldenke, Alph. List Cit. 1: 29, 49, 50, 54, 112, 114, 165, 206, 220,

224, & 247 (1946), 2: 410, 415, 416, 435, 490, & 644 (1948), 3: 700, 707, 712, 754, 761, 813, 878, 887, 891, 902, 946, & 952 (1949), and 4: 997, 1012, 1038, 1069, 1139, & 1154. 1949; Moldenke, Known Geogr. Distrib. Verbenac., [ed. 2], 121 & 178. 1949; Moldenke, Phytologia 4: 441. 1953; Moldenke, Résumé 152, 238—240, 251, & 445. 1959.

Leighton describes this plant as a perennial to 1 1/2 feet tall, with sweet-scented white flowers.

Additional citations: UNION OF SOUTH AFRICA: Cape of Good Hope: Leighton 1927 (N).

CHASCANUM DEHISCENS (L. f.) Moldenke

Additional & emended literature: Hook. & Jacks., Ind. Kew. 1: 327 & 507. 1893; Hill, Ind. Kew. Suppl. 6: 28. 1926; Moldenke in Fedde, Repert. 41: 62. 1936; Hill, Ind. Kew. Suppl. 9: 61. 1938; Moldenke, Geogr. Distrib. Avicenn. 31 & 36. 1939; Moldenke, Known Geogr. Distrib. Verbenac., [ed. 1], 52, 71, & 87. 1942; Moldenke, Alph. List Cit. 1: 6, 34, 49, 50, 54, 78, 80, 117, 123, 164, 165, 174, 176, 204, 210, 219, 220, 234, 235, 276, & 277 (1946), 2: 354, 355, 358, 402, 408, 410, 415, 416, 430, 434, 448, 490, 561, 576, 620, 621, & 627 (1948), 3: 671, 675, 700, 754, 761, 808, 866, 885, 903, 907, & 917 (1949), and 4: 997, 1014, 1069, 1093, 1100, 1140, & 1154. 1949; Moldenke, Known Geogr. Distrib. Verbenac., [ed. 2], 121, 157, & 178. 1949; Moldenke, Phytologia 4: 441-442. 1953; Moldenke, Résumé 152, 214, 238, 240, 251, 277, 334, 335, 341, 342, & 445. 1959.

Meeuse, in a letter to me dated March 19, 1954, makes a strong case for the re-adoption of the binomial Chascanum cuneifolium for this species. He points out that the names Büchnera cuneifolia L. f. and Phryma dehiscens L. f. were both originally published in the same book. He maintains that it is the first combination in the genus Chascanum based on either of these names that must stand. He says that "Thunberg's name Buchnera cuneifolia appears first in Linn. f., Suppl. p. 288, with the addition 'Thunb.' It is pretty certain that many of the Cape plants described by Linn. f. in his Supplementum Plantarum were not only based on specimens contributed by Thunberg, but also already named by Thunberg (provisionally). This can for instance be concluded from the fact that in Thunberg's Nova Gen. Pl. I, also published in 1781, many names appear which are exactly the same as in the publication by Linnaeus the younger (see Falckia repens Thunb. in Nov. Gen. Pl. I and Falkia repens Linn. f. in Suppl. Pl., and there are many more similar examples). Thunberg, when quoting these names in his later works does not always mention Linn. f. as the author\ As regards the priority of these publications, the one by Linnaeus is taken to be older, so that for instance the genus Falkia is attributed to Linn. f. and not to Thunberg. We can summarize as follows: (1) Linnaeus mentions Buchnera cuneifolia 'Thunb.' in his Suppl. Pl. (2) Thunberg, in his Prodr. Fl. Cap. (1800), p. 100, quotes Linnaeus and in the

Schultes edition of his Flora Capensis, referring to the same plant (and specimen) repeats the name as Buchnera cuneifolia, citing the older publications. (3) Meyer quotes B. cuneifolia Thunb., Fl. Cap. (1823) p. 466 -- still the same plant, but quite naturally he quotes Thunberg as the author, but this citation includes all older synonyms! (4) Meyer's new combination is, therefore, valid and stands. It would make all the difference if the species attributed to Thunberg by the younger Linnaeus would be cited as 'Thunb. ex Linn. f.' or 'apud Linn. f.' but nobody has ever done so as far as I know. At any rate, strictly speaking this cannot be done under the Rules. According to Juel (Pl. Thunbergianae, 1918) Thunberg was the 'auctor intellectualis', so that ancient quotations mentioning him as the author are to be accepted, such as in the case of Buchnera cuneifolia. Accordingly, the correct name for the species under discussion is Chascanum cuneifolium (Linn. f.) E. Mey."

Additional citations: UNION OF SOUTH AFRICA: Cape of Good Hope: E. Wall 12, in part (Lu). Natal: M. Franks s.n. [J. M. Wood 11664] (Lu).

CHASCANUM GARIPENSE E. Mey.

Emended synonymy: Bouchea gariepensis Schau. ex Range in Fedde, Repert. 38: 256. 1935.

Additional & emended literature: Hook. & Jacks., Ind. Kew. 1: 327 & 507. 1893; Prain, Ind. Kew. Suppl. 3: 27. 1908; Range in Fedde, Repert. 38: 256. 1935; Hill, Ind. Kew. Suppl. 9: 61. 1938; Moldenke, Geogr. Distrib. Avicenn. 31. 1939; Moldenke, Known Geogr. Distrib. Verbenac., [ed. 1], 52 & 87. 1942; Moldenke, Alph. List Cit. 1: 3, 15, 56, 74, 162, 165, 193, 215, 220, 261, 270, & 277 (1946), 2: 415--417, 620, & 644 (1948), 3: 663, 707, 732, 780, 802, 816, 825, 841, 866, 898, 900, 902, 903, & 968 (1949), and 4: 1010, 1030, 1068, 1135, & 1147. 1949; Moldenke, Known Geogr. Distrib. Verbenac., [ed. 2], 121 & 178. 1949; Moldenke, Phytologia 4: 443. 1953; Moldenke, Résumé 151, 152, 238, 251, & 445. 1959.

Range (1935) cites his numbers 118, 514, 534, 1061, and 2538, not as yet seen by me.

Additional citations: SOUTHWEST AFRICA: Bass s.n. [Herb. Transvaal Mus. 36201] (Z); Seydel 36 (B), 453 (B). UNION OF SOUTH AFRICA: Cape of Good Hope: H. H. W. Pearson s.n. [X.1905] (Lu); F. R. R. Schlechter 11410 (B); Wasserfall 1030 (Z).

CHASCANUM GILLETTII Moldenke

Additional & emended literature: Moldenke, Geogr. Distrib. Avicenn. 30. 1939; Moldenke, Known Geogr. Distrib. Verbenac., [ed. 1], 45 & 87. 1942; Moldenke, Alph. List Cit. 1: 235. 1946; E. J. Salisb., Ind. Kew. Suppl. 10: 49. 1947; Moldenke, Known Geogr. Distrib. Verbenac., [ed. 2], 110 & 178. 1949; Gillett, Kew Bull. 1955: 133--134. 1955; Moldenke, Résumé 135, 145, & 445. 1959.

Gillett (1955) records the following additions to the diagno-

sis: fruiting-calyx slightly inflated, split to the base, 7 mm. long; mericarps glabrous, stramineous, oblong, 4 mm. long, 1 mm. wide, reticulate-sculptured at the apex, distantly longitudinally striate toward the base.

The type collection was made on a stony limestone hill with Acacia bussei woodland, near Buramo, at 10°5' N., 43°10' E. The flowers are reported by collectors as apricot-colored or reddish-brown, the corolla-limb brownish-yellow, the tube cream-colored. Gillett states "It seems that the corolla-limb is consistently dark yellow brown or purplish resembling that of C. arabicum and different (so far as is known) from that of all other species in N. E. Africa." It appears to inhabit rocky ground and has been collected in anthesis in February, May, August, and September, and in fruit in February. The Kenya collection, cited below, was made in cracks in granite rocks in Acacia-Commiphora scrub, at 3400 feet altitude; the corolla-limb said to be yellow, with the tube cream-colored.

The Lort Philips specimens cited below were originally cited by me in Revist. Sudam. Bot. 6: 16 (1939) as C. adenostachyum (Schau.) Moldenke in error. As Gillett has pointed out, they lack the characteristic glandular hairs in the inflorescence possessed by the latter species which is limited to southern Africa.

Gillett cites in addition from British Somaliland Gillett 4934 (K--isotype), M. White 132 (K), Bally 7272 (K), and Collenette 99 (K), and from Kenya Gillett 13196 (K), not yet seen by me.

Additional citations: BRITISH SOMALILAND: Lort Phillips s.n. [Wagga Mts., 1897] (Bm), s.n. [Rugger Pass] (Bm); Thomson 41 (K), 46 (K). KENYA: Gillett 13196 (S).

CHASCANUM GÜRKEANUM (Loes.) Moldenke

Synonymy: Bouchea gürkeana Loes. ex Dinter in Fedde, Repert. 15: 352, hyponym. 1918. Bouchea guerkeana Loes. ex Range in Fedde, Repert. 38: 256. 1935. Chascanum gurkeanum Hauman ex Moldenke, Résumé Suppl. 1: 16, in syn. 1959.

Literature: Dinter in Fedde, Repert. 15: 352. 1918; Range in Fedde, Repert. 38: 256. 1935; Moldenke, Phytologia 4: 443--444. 1953; Hauman, Assoc. Etud. Tax. Fl. Afr. Trop. Index. 1954; Moldenke, Résumé 151 & 445. 1959.

The species is based on Dinter 390, collected in 1917 on Farm Judaea at Hoachanas, Namaland, Southwest Africa. Apparently no description has as yet been published, and the type collection has not as yet been made available to me for examination.

CHASCANUM HANNINGTONII (Oliv.) Moldenke

Additional & emended literature: Hook. & Jacks., Ind. Kew. 1: 327. 1893; J. G. Baker in Thistelton-Dyer, Fl. Trop. Afr. 5: 283. 1900; Moldenke, Torreya 34: 9. 1934; Hill, Ind. Kew. Suppl. 9: 61. 1938; Moldenke, Geogr. Distrib. Avicenn. 30. 1939; Moldenke, Known Geogr. Distrib. Verbenac., [ed. 1], 49 & 87. 1942; Moldenke, Alph. List Cit. 1: 255. 1946; Moldenke, Known Geogr. Distrib.

Verbenac., [ed. 2], 116 & 178. 1949; Gillett, Kew Bull. 1955: 135. 1955; Moldenke, Résumé 143, 238, & 445. 1959.

Illustrations: Oliv. in Hook., Icon. Pl. 15: pl. 1446. 1883.

Gillett (1955) maintains that this species belongs in the subgenus Rhagocarpium next to C. hildebrandtii (Vatke) Gillett, rather than in Euchascanum, where I originally placed it. He notes that bracteoles are absent and the only cocci visible in the solitary specimen known are too young to enable us to decide whether they separate spontaneously when ripe or not. He states that the type was probably collected in the area between 36°25' and 37°35' E. and 6°15' to 20' S. in 1882 or 1883.

CHASCANUM HEDERACEUM (Sond.) Moldenke

Additional & emended literature: Hill, Ind. Kew. Suppl. 9: 61. 1938; Moldenke, Geogr. Distrib. Avicenn. 31. 1939; Moldenke, Known Geogr. Distrib. Verbenac., [ed. 1], 52 & 87. 1942; Moldenke, Alph. List Cit. 1: 4, 49, 50, 80, 102, 114, 130, 219, 220, 235, & 277. 1946; E. J. Salisb., Ind. Kew. Suppl. 10: 33. 1947; Moldenke, Alph. List Cit. 2: 554, 556, 557, 598, & 645 (1948), 3: 659, 706, 721, 740, 761--763, 803, 825, 847, 849, 858, 866, 902, 946, 949, & 976 (1949), and 4: 981, 985, 993, 994, 1004, 1093, 1135, & 1154. 1949; Moldenke, Known Geogr. Distrib. Verbenac., [ed. 2], 119, 121, & 178. 1949; Moldenke, Phytologia 4: 444. 1953; Moldenke, Résumé 148, 152, 238, 239, & 445. 1959.

This species is described by collectors as a subshrub, semi-upright and to 6 dm. tall, or decumbent, inhabiting the bushveld, roadsides on red sandy loam, red sandy soil on the south side of quartzite ridges, and thorn scrub on red magnetite loam, in fruit in April. Sidney describes the flowers as "tubular". They are said by Meeuse to be pale cream-colored.

Additional citations: UNION OF SOUTH AFRICA: Transvaal: L. E. Codd 1118 (Ss), 2556 (Ss); Leemann s.n. [Herb. Transvaal Mus. 27474] (Z); R. Leendertz 2311 (N); Meeuse 9097 (Cb), 9464 (Ss); F. R. R. Schlechter 3707 (Cb); Sidney 1386 (S); Van Dam s.n. [Herb. Transvaal Mus. 25675] (Cb).

CHASCANUM HEDERACEUM var. NATALENSE (H. H. W. Pearson) Moldenke

Additional & emended literature: Thiselton-Dyer, Ind. Kew. Suppl. 2: 28. 1904; Hill, Ind. Kew. Suppl. 9: 61. 1938; Moldenke, Geogr. Distrib. Avicenn. 31. 1939; Moldenke, Known Geogr. Distrib. Verbenac., [ed. 1], 51, 52, & 87. 1942; Moldenke, Alph. List Cit. 1: 50, 51, & 234 (1946) and 2: 614. 1948; H. N. & A. L. Moldenke, Pl. Life 2: 89. 1948; Moldenke, Known Geogr. Distrib. Verbenac., [ed. 2], 119--121 & 178. 1949; Moldenke, Alph. List Cit. 3: 761, 762, 866, & 902 (1949) and 4: 983, 1135, & 1140. 1949; Moldenke, Phytologia 4: 444--445. 1953; Moldenke, Résumé 148, 150, 152, 238, 239, 261, 277, & 446. 1959.

CHASCANUM HILDEBRANDTII (Vatke) Gillett, Kew Bull. 1955: 134--135. 1955.

Synonymy: Stachytarpheta hildebrandtii Catke, Linnaea 43:

529. 1882. Chascanum africanum Moldenke in Fedde, Repert. 45: 136--138. 1938.

Literature: Vatke, Linnaea 43: 529. 1882; Hook. & Jacks., Ind. Kew. 2: 974. 1895; J. G. Baker in Thiselton-Dyer, Fl. Trop. Afr. 5: 284. 1900; Moldenke in Fedde, Repert. 45: 136--138. 1938; Moldenke, Revist. Sudam. Bot. 6: 16. 1939; Moldenke, Geogr. Distrib. Avicenn. 30. 1939; Hutchinson & Bruce in Gillett, Kew Bull. 1941: 176. 1941; Moldenke, Known Geogr. Distrib. Verbenac., [ed. 1], 45, 49, 50, 87, & 100. 1942; Moldenke, Alph. List Cit. 1: 28, 98, 112, 224, 247, & 250. 1946; E. J. Salisb., Ind. Kew. Suppl. 10: 49. 1947; Moldenke, Alph. List Cit. 2: 537. 1948; H. N. & A. L. Moldenke, Pl. Life 2: 64. 1948; Moldenke, Known Geogr. Distrib. Verbenac., [ed. 2], 110, 116--118, 178, & 196. 1949; Moldenke, Alph. List Cit. 3: 784 (1949) and 4: 995. 1949; Moldenke, Phytologia 4: 441. 1953; Gillett, Kew Bull. 1955: 134--135. 1955; Assoc. Etud. Tax. Fl. Afr. Trop. Index 1955: 63. 1956; Moldenke, Résumé 143, 145, 250, 348, & 446. 1959.

A much-branched perennial herb, according to Vatke's original description, with terete pilose stems; leaves decussate-opposite, oblong, 2.5--4 cm. long, distinctly petiolate, obtuse at the apex, crenate along the margins, cuneate at the base, hairy on both surfaces; spikes 15--23 cm. long, the rachis slender, hairy, tetragonal, not hollowed out opposite the flowers; bracts lanceolate, the lower ones about 6 mm. long; calyx about 12 mm. long, 4-ribbed, pilose, the teeth minute; corolla-tube about twice as long as the calyx, its limb milky-white, about 6 mm. wide.

Greenway describes the plant as a much-branched annual herb, up to 2 feet tall, with white or pink flowers, common as a weed among grasses on a pale-red soil in a sisal plantation, altitude 1200 feet, flowering in July. Verdcourt calls it a branched herb 1 foot tall, with white flowers, the corolla-tube very much curved and the anthers yellowish, growing with Indigofera, Aristida, Cenchrus, Acacia albida, and Spirocarpa in grassland, altitude 4500 feet, flowering and fruiting in October. Specimens have been misidentified and distributed in herbaria as Bouchea pterygocarpa Schau. and Svensonia pterygocarpa (Schau.) Moldenke.

The type of the species was collected by Johann Maria Hildebrandt (no. 2737) -- in whose honor it is named -- in the central province of Kenya, and is deposited in the herbarium of the Botanisches Museum at Berlin. The type of C. africanum was collected by Helen Maria Gardner (no. 3372) at Kiteta, Machakos district, Kenya, at an altitude of 3500 feet, in January, 1935, and is deposited in the herbarium of the Royal Botanic Gardens at Kew. When I proposed the latter name I had seen a specimen of Hildebrandt's collection, but was not aware of its being the type of Stachytarpheta hildebrandtii. Gillett (1955) has pointed this out and his new combination must be adopted. He remarks that "There is no doubt that this plant is a Chascanum. Vatke does not mention the number of stamens (2 in Stachytarpheta, 4 in Chascanum): There are 4 in the Kew sheet of Hildebrandt 2737

and in all other specimens examined. Vatke, followed by Baker, states that the calyx of S. hildebrandtii is 4-ribbed and 4-toothed. Examinations of Hildebrandt 2737 and other specimens show it to be 5-ribbed and 5-toothed...."

The species was reported from British Somaliland by me in several previous publications and by Hutchinson & Bruce in their 1941 publication cited above. However, as Gillett has pointed out, "of the specimens cited, Thomson 41, 46 and Gillett 4934 are C. gillettii, Gillett 4550 is Svensonia laeta and 4518 is C. sessilifolium. True C. hildebrandtii has, so far, not been seen from further north than Dandu (3°26' N.) in N. Kenya (Gillett 13053, 13230). There is great variation in the apex of the mericarp in C. hildebrandtii. In some specimens, e.g. Kirrika 75, this is definitely truncate, in others, e.g. Bally 498, Verdcourt 759, it is pointed and a small wing is formed; yet others are intermediate. These differences do not seem to be correlated with other characters. The wing, if present, is much smaller than in Svensonia laeta and the differences in indumentum readily distinguish the two species, but these forms of C. hildebrandtii with rudimentary wings, together with the relatively short wing in Svensonia moldenkei certainly cast some doubt on the generic status of Svensonia. Chascanum angolense Moldenke, at present known only from a single gathering, is extremely close to some forms of C. hildebrandtii and future work may well show it to be conspecific!

Drummond & Hemsley describe the plant as an annual to 80 cm. tall, with a green calyx and white corolla, growing along roadsides and the margins of cultivation. Peter found it flowering and fruiting in May and June at altitudes of 500 to 925 meters, and confused it with Bouchea marrubiifolia Schau. and the genus Hebenstreitia in the Selaginaceae. Hutchinson & Bruce record the common name "ubolōlu", but it is not certain if this name applies here or to C. gillettii, C. sessilifolium, or Svensonia laeta.

Additional & corrected citations: UGANDA: Paget-Wilkes K.A. 0131 (Bm, N); Verdcourt 759 (Af). TANGANYIKA: Drummond & Hemsley 2338 (S); P. J. Greenway 4013 (Af); J. W. Gregory s.n. [Camp 103] (Bm); Haarer 523 (K, N); A. Peter 10369 [OIII.104] (B), 10471 [OIII.105] (B), 10483 [OIII.106] (B), 10593 [OIII.108] (B), 11008 [OIII.115] (B), 13493 [OIII.178] (B), 40914 [V.255] (B), 41261 [V.261] (B), 41602 [V.266] (B). KENYA: Baltiscombe 259 (K); Champion T.141 (K); Cockburn s.n. [s. of Lake Rudolf] (K); H. M. Gardner 3372 (K, K, K--photo, Z--photo); Hildebrandt 2737 (Bm--isotype, P--isotype).

CHASCANUM HUMBERTI Moldenke, Phytologia 3: 262. 1950.

Additional literature: Moldenke, Phytologia 4: 445. 1953; E. J. Salisb., Ind. Kew. Suppl. 11: 51. 1953; Moldenke in Humbert, Fl. Madag. 174: 19--20. 1956; Moldenke, Résumé 155 & 446. 1959.

Small shrub or subshrub, about 1 m. tall; branches and

branchlets very slender, rather acutely tetragonal, light-gray, very densely cinereous- or albidous-puberulent with retrorse hairs, more or less striate-costate; nodes annulate; principal internodes 0.5--4.5 cm. long; leaves decussate-opposite, often with extremely abbreviated twigs in their axils; petioles very slender, 5--10 mm. long, canaliculate above, densely cinereous-puberulent; leaf-blades chartaceous in drying, probably more or less fleshy when fresh, elongate-oblong, 1--4 cm. long, 3--12 mm. wide, obtuse or subacute at the apex, long-attenuate at the base, very sparsely and obscurely strigillose, soon glabrescent on both surfaces; midrib slender, plane above, somewhat prominulous beneath and rather densely puberulent; secondaries and veinlet reticulation indiscernible on both surfaces; inflorescence terminal, spicate, 11--15 cm. long, rather loosely many-flowered; peduncles very slender, light-gray, 1.5--2.5 cm. long, very densely cinereous-puberulent; rachis similar to the peduncles in all respects but somewhat flexuous and less densely puberulent, not excavated; bractlets lanceolate, 4--5 mm. long, long-attenuate at the apex, lightly and minutely puberulent or glabrescent; calyx tubular, 11--12 mm. long, about 1 mm. wide, minutely puberulent or glabrescent, 5-ribbed, its rim very shortly 5-toothed, the teeth apiculate; corolla hypocrateriform, varying from rose or pale-rose to violet or slightly rosy-white, showy, long-exserted, its tube narrow-cylindric, about 3 cm. long, subglabrous on the outer surface or more or less scattered-pilose near the apex and short-pubescent at the mouth, its limb wide-spreading, deeply 5-parted, the lobes obovate, about 7 mm. long and 5--7 mm. wide, rounded or sinuate at the apex; stamens 4, didynamous, inserted near the apex of the corolla-tube, included; filaments extremely short; pistil included; fruit not seen.

The type of this handsome species was collected by Henri Humbert (no. 11548) -- in whose honor it is named -- in forests and bush on limestone soil at an altitude of 50--200 m., in the low valley of Fiherenana, Madagascar, in November, 1933, and is deposited in the herbarium of the Muséum National d'Histoire Naturelle at Paris. The species is said to grow on limestone hills and in rocky places and ravines, in tropophilous forests and xerophilous bush, at altitudes of 10 to 300 meters, and has been collected in anthesis in January, April, August, September, and November.

CHASCANUM INCISUM (H. H. W. Pearson) Moldenke

Additional & emended literature: Prain, Ind. Kew. Suppl. 3: 27. 1908; Hill, Ind. Kew. Suppl. 9: 61. 1938; Moldenke, Geogr. Distrib. Avicenn. 31. 1939; Moldenke, Known Geogr. Distrib. Verbenac., [ed. 1], 52 & 87. 1942; Moldenke, Alph. List Cit. 1: 31, 57, 130, & 219 (1946), 3: 762, 763, 866, & 902 (1949), and 4: 994. 1949; Moldenke, Known Geogr. Distrib. Verbenac., [ed. 2], 121 & 178. 1949; Moldenke, Phytologia 4: 445. 1953; Moldenke, Résumé 152, 238, & 446. 1959.

Meeuse describes this plant as a much-branched low subshrub or small, dense, somewhat spreading perennial suffruticose at base.